

Keep With Operator's Manual

GRILLE GUARD MASSEY FERGUSON 231 AND 231S TRACTORS

TRACTOR AND GRILLE GUARD GENERAL INFORMATION

Grille guard can be installed on tractor using tools ordinarily available, including standard wrenches and a torque wrench.

Grille guard is designed to be compatible with front weights and can be used on tractors with or without front weight bracket and weights.

Grille guard is designed to be compatible with Alamo SMC or Rhino 2409 loader. If loader is to be installed, install grille guard while installing front mounting brackets.

References to left and right used in these instructions refer to position when seated in operating position on tractor.

Shut off engine and engage brakes, and remove key during installation.

NOTE: *Install all attaching hardware loosely (unless noted otherwise) until grille guard is completely assembled to facilitate assembly and proper alignment.*

INSTALLING GRILLE GUARD ONTO TRACTOR WITHOUT LOADER

1. Install mounting flat (4) onto each side of tractor front weight bracket using 5/8" x 2-1/4" cap screws (9) and 5/8" lock nuts (15) through lower holes on weight bracket and 5/8" x 2" cap screws (10) and 5/8" lock nuts through upper holes in weight bracket.
2. Slide grille guard assembly (1) into slotted surface at top of mounting flats (4). Fasten grille guard assembly (1) to mounting flats (4) using 1/2-13 x 1-1/2 cap screws (12), 1/2 flat washers (13) and spacer tubes (7) and 1/2 lock nuts (16).

Tighten 5/8" Grade 5 hardware to 126-139 ft.-lbs. (171-188 N•M) of torque; tighten 1/2" Grade 5 hardware to 65-72 ft.-lbs. (88-97.5 N•M) of torque.

INSTALLING GRILLE GUARD ONTO TRACTOR WITH LOADER

1. Support loader using an overhead hoist. Remove bolts securing loader yoke onto loader upright. Install mounting angles (2 & 3) to inside surface of loader yoke and loader upright using 3/4" x 3" cap screws (8) and 3/4" lock nuts (14).
2. Attach grille brackets (5 & 6) to mounting angles (2 & 3) with open slotted surface of grille brackets (5 & 6) up using 1/2" x 1-3/4" cap screws (11), 1/2" flat washer (13) and 1/2" lock nut (16).
3. Slide grille guard assembly (1) into open slotted surface of grille brackets (5 & 6) and slide down to lock into place. Fasten grille guard assembly (1) to grille brackets (2 & 3) using 1/2" x 1-1/2" cap screws (12), 1/2" flat washers (13), spacer tubes (7) and 1/2" lock nuts (16).

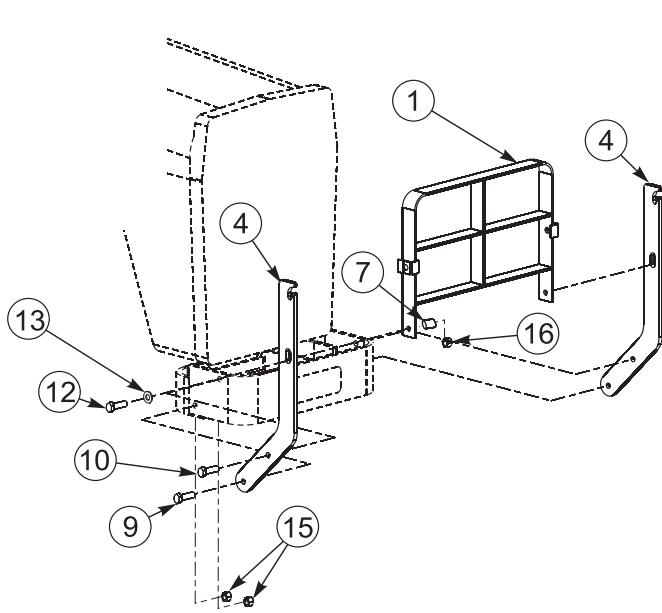
ACCESSING TRACTOR GRILLE SCREEN

Tractor grille screen can be accessed by lifting up on grille guard assembly (1) and rotating forward and down. Adjust grille brackets (5 & 6) to allow grille guard assembly (1) to easily slide in and out of its lock pocket.

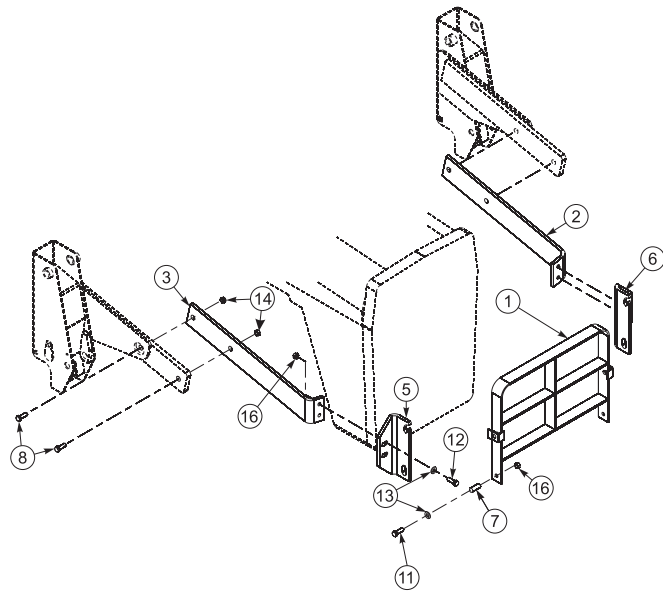
Tighten and torque hardware based on torque specification table.

Reinstall loader onto tractor.

IMPORTANT: *Before operating tractor or loader, secure grille guard in upright position. Rotate grille guard upward, lift grille guard and slide catch-pins into upper slots, then slide grille guard down into slots.*



With Weightbox



Without Weightbox

PARTS LIST – GRILLE GUARD

Item	Part No.	Description	Qty.
1	52815	GRILLE GUARD, Assembly	1
2	52812-1	BRACKET, Mounting, Grille Guard, Left	1
3	52812-2	BRACKET, Mounting, Grille Guard, Right	1
4	52811	MOUNTING, Flat	2
5	52813-1	BRACKET, Grille, Left	1
6	52813-2	BRACKET, Grille, Right	1
7	47427-1	SPACER, Tube	2
8	41838-55	SCREW, Cap, 3/4-10 x 3"	4
9	41838-14	SCREW, Cap, 5/8-11 x 2 1/4", Grade 5	2
10	41838-27	SCREW, Cap, 5/8-11 x 2"	2
11	41838-12	SCREW, Cap, 1/2-13 x 1 3/4", Grade 5	12
12	41838-33	SCREW, Cap 1/2-13 x 1 1/2"	2
13	48295-2	WASHER, Flat, 1/2" Hardened	6
14	41840-8	NUT, Lock, 3/4-10	4
15	41840-7	NUT, Lock, 5/8-11	4
16	41840-5	NUT, Lock, 1/2-13	6

GENERAL TORQUE SPECIFICATIONS

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

Standard American and Metric Cap Screws

AMERICAN STANDARD CAP SCREWS										METRIC CAP SCREWS							
SAE Grade	5				8				Metric Class	8.8				10.9			
Typ. Head Markings									Typ. Head Markings								
Cap Screw	TORQUE				TORQUE				Cap Screw	TORQUE				TORQUE			
Size	FT·LBS		N·m		FT·LBS		N·m		Size	FT·LBS		N·m		FT·LBS		N·m	
Inches	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	Millimeters	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1/4 - 20	6.25	7.25	8.5	10	8.25	9.5	11	13	M6 x 1.00	6	8	8	11	9	11	12	15
1/4 - 28	8	9	11	12	10.5	12	14	16	M8 x 1.25	16	20	21.5	27	23	27	31	36.5
5/16 - 18	14	15	19	20	18.5	20	25	27	M10 x 1.50	29	35	39	47	42	52	57	70
5/16 - 24	17.5	19	23	26	23	25	31	34	M12 x 1.75	52	62	70	84	75	91	102	123
3/8 - 16	26	28	35	38	35	37	47.5	50	M14 x 2.00	85	103	115	139	120	146	163	198
3/8 - 24	31	34	42	46	41	45	55.5	61	M16 x 2.50	130	158	176	214	176	216	238	293
7/16 - 14	41	45	55.5	61	55	60	74.5	81	M18 x 2.50	172	210	233	284	240	294	325	398
7/16 - 20	51	55	69	74.5	68	75	92	102	M20 x 2.50	247	301	335	408	343	426	465	577
1/2 - 13	65	72	88	97.5	86	96	116	130	M22 x 2.50	332	404	450	547	472	576	639	780
1/2 - 20	76	84	103	114	102	112	138	152	M24 x 3.00	423	517	573	700	599	732	812	992
9/16 - 12	95	105	129	142	127	140	172	190	M27 x 3.00	637	779	863	1055	898	1098	1217	1488
9/16 - 18	111	123	150	167	148	164	200	222	M30 x 3.00	872	1066	1181	1444	1224	1496	1658	2027
5/8 - 11	126	139	171	188	168	185	228	251									
5/8 - 18	152	168	206	228	203	224	275	304									
3/4 - 10	238	262	322	355	318	350	431	474									
3/4 - 16	274	305	371	409	365	402	495	544									
7/8 - 9	350	386	474	523	466	515	631	698									
7/8 - 14	407	448	551	607	543	597	736	809									
1 - 8	537	592	728	802	716	790	970	1070									
1 - 14	670	740	908	1003	894	987	1211	1337									

NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphite or moly sulphide greases or other extreme lubricants are used.

INSTALLATION INSTRUCTIONS